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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/403,174	10/18/1999	PETER RUDLOFF	016072-00060	6937

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EXAMINER

LEE, DIANE I

ART UNIT PAPER NUMBER

2876

DATE MAILED: 10/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/403,174

Applicant(s)

RUDLOFF, PETER

Examiner

Diane I. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Receipt is acknowledged of the Amendment filed 16 July 2002. Claims 1-12 have been canceled and claims 13-24 have been newly added. Currently, claims 13-24 are pending in this application.

#### *Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claims 13, 23, and 24: The word “authenticating” or phrase “authenticating information” in the claims is unclear (e.g., in claim 13, lines 1+ read, “A system for identifying and authenticating operating substances for an item of equipment”, and lines 5+ read, “authenticating information that can be detected by a human eye ...”). Applicant fails to clearly define the term/phrase (authenticating or authenticating information) in the claim. Furthermore, the specification does not have a clear support in defining the term/phrase. The only support that the examiner noted from the specification is that an item of information in a second region of the data carrier portion is detectable by the human eye and is distinctive to the human viewer, such as a sequence of letters or a trademark (see paragraphs 9, 25, and etc.). Further, in the applicant’s remark section (see page 1, lines 11+), applicant stated that “*the present invention, as defined by independent claims 13, 23, and 24, provides two types of information on the substance, or the container for the substance, namely machine readable information and visible (by the human eye) information. The visible information, but not the machine-readable information, is evaluated in such a way that the piece of equipment being controlled is permitted to operate only if the read, visible (authenticating) information coincides with separately stored authentication information*”. Therefore, in

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light of the specification and the applicant's response, the information on the carrier/container that is visible and detectable by the human eye and is distinctive to the human viewer qualifies as authenticating information. Accordingly, for the examining purpose, the authenticating or authenticating information have been translated as --the information on the carrier/container that is visible, detectable by the human eye, and distinctive to the human viewer--.

Re claims 23 and 24: the phrase "authenticating signal" is unclear. Applicant failed to define the authenticating signal in the claims. As best understood by the examiner, the "authenticating signal" has been translated as a subsequent signal generated by the controlling means upon completion of the comparing operation.

Therefore, claims 13, 23, 24, and claims depend therefrom, claims (i.e., claims 14-22) are vague and indefinite.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-16, 18, 20, and 23-24 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over

Moed et al. [US 5,770,841-referred as Moed].

Re claims 13-14: Moed discloses a system 10 for identifying and authenticating operating substances (marking data on the top surface 34 of the package 20) for items of equipment,

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the operating substances or their storage containers being provided with machine-readable product information 36, and information (a destination address 38) that can be detected by human eye and is distinctive to a human viewer (see figure 2);

the items of equipment (i.e., the system for operating the packages or substances) being provided with an imaging system 12 and a label decoding system 14 as a reading and evaluating device (see figure 1);

the reading and evaluating device 12 having a comparison device for comparing the reading information with a stored authorized information of origin (i.e., the information stored in the database) as well as an enabling controller for at least one functional component of the item of equipment in such a way that if the read information coincides with the stored information an authenticating signal or enabling signal is supplied by the enabling controller to the functional component, which thereupon permits operation of the item of equipment and if the read information does not coincide with the stored information disables operation of the item of equipment (i.e., when the system unable to verify a decoded destination address, the system disables the normal continuing the package processing by displaying the destination address image on the workstation for an operator's review and a manual correction) (see the abstract, col. 9, lines 27+).

Moed does not explicitly state that the destination marking data on the package is an authenticating information.

The destination marking data on the package 38, which is compared with the stored data to evaluate whether it coincides with the stored data. Furthermore, due to the fact that an information on the package that is visible and detectable by the human eye and is distinctive to the human viewer qualifies as authenticating information (see the 112 rejection above), it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to recognized that the destination marking data

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on the package is an authenticating information, which is visible, detectable by the human eye and is distinctive to the human viewer to clearly identify, distinctively recognize the package information.

Re claim 15: the data carrier portion has a first region (i.e., a bar code data 36), in which only machine-readable information is stored, and a second region (i.e., a destination address data 38 which typically consist of alphanumeric text arranged I two or more lines), in which the information that can be detected by the human eye and is distinctive to the human viewer is store (see col. 5, lines 32+ and figure 2).

Re claims 16 and 20: wherein the data carrier portion includes at least one reference marking 42 for the orientation of the reading device (see col. 7, lines 55+; col. 11, lines 2+; and figure 2) and wherein the reference marking has a frame 40 (i.e., area or block defining the destination address block) reaching around the second region of the data carrier portion.

Re claim 18: the first region of the data carrier portion has a multiplicity of a binary pixel code lines (i.e., bars/spaces, 1s/0s, or high/low), the binary pixel code containing the only machine-readable information, and the second region of the data carrier portion has a plurality of lines of pixel code which together form the information that can be detected by the human eye and is distinctive to the human viewer (i.e., the destination address data having an image captured by a high resolution camera or a CCD with the application of optical character recognition techniques) (see col. 11, lines 37+).

Re claims 23-24: Moed teaches the process of a detecting and decoding information provided on an optically readable data carrier portion comprising the steps of:

registering the optical information present on the data carrier portion (i.e., a fiduciary mark detector 24 having a camera detecting the mark and determine the orientation, position of the destination block) (see col. 5, lines 32+);

identifying the first and second region of the data carrier portion (col. 11, lines 2+);

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reading out and decoding the binary information contained in the first region, i.e., in the bar code data (see step 402 in figure 4);

reading out the optical information (i.e., a second region) present on the data carrier option (i.e., capturing the image by the high resolution camera 16 and decoding the image at the label decoding system 14) (see col. 7, lines 64+);

comparing the read-out information with a stored information sample (see col. 9, lines 22+); and  
generating an authenticating signal (i.e., a valid signal) if the read-out information of the second region has been detected as coinciding with the stored information sample (see col. 9, lines 27+);

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17, 19, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moed. The teachings of Moed have been discussed above.

Re claim 17: Although Moed states that the second region is a destination address data 38 which typically consist of alphanumeric text thus the information can be detected by the human eye and is distinctive to the human viewer, Moed does not states that the second region is formed by a trademark.

Since the trade mark can be a name identifying a product, company name such a "coca-cola", "Kellogg's", "3M company", and etc. that is officially registered and legally restricted to use of the owner, the destination data having a name of the company which some of the company name may be officially registered and legally restricted to use. Therefore, it would have been obvious to an artisan of

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ordinary skill in the art at the time the invention was made to recognize that the second region forms a trademark so long as the name is officially registered and legally restricted to use.

Re claim 19: Moed does not explicitly states the machine-readable limit marking.

Since the imaging system only reads and decode the image on the first and second region of the package, the third region of the top surface 34 of the package (surface other than the first and second region) serves as a machine-readable limit marking which preferably comprises at least one blank area provided between the first region of the data carrier portion and the second region of the data carrier portion. Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to recognize that the blank space on the top surface between the first and the second region is a machine-readable limit marking in order to distinguish the two different image.

Re claim 21: Moed states that the bar code may extend to a two-dimensional code (see col. 11, lines 10+). Upon providing two-dimensional bar code, the binary pixel code of a line in each adjacent lying row of the two-dimensional code would have a row of bit markings of the binary representation of an item of information.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moed in view of Kubo [US 5,422,470]. The teachings of Moed have been discussed above.

Moed does not explicitly teach the binary bit markings having a check digit additionally provided in each line for the binary representation of the information.

Kubo discloses a two dimensional stacked bar code (i.e., PDF-417 code) having a start code 22 and a stop code 23check used as a digit check for the binary representation of the information in each row (see col. 4, lines 56+figure 2).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the check digit in the bar code of Moed in order to validate the decoding operation.



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Furthermore, a conventional check digit or a check character (i.e., value is based on some mathematical relationship of the other characters in the symbol) placed in a predetermined position in a bar code symbol is well known for validating the decoding operation of the symbol by the scanner. Therefore, the binary bit markings having a check digit additionally provided in each line for the binary representation of the information would have been an obvious extension taught by Moed for facilitating the decoding process.

### ***Response to Arguments***

7. Applicant's arguments filed 17/16/02 have been fully considered but they are not persuasive.

8. In response to applicant's argument with respect to Moed reference that Moed does not disclose or in any form suggest a system for authenticating a substance, or a substance in a container, by comparing a visible mark with stored information and, depending on whether or not the two match, permitting or preventing the operation of an associated piece of equipment or instrument. Applicant further stated that Moed is not concerned with authenticating a substance and using the authentication to control the operation of instruments, machinery and the like (see page 8, lines 25+). The examiner respectfully disagrees. Due to the fact that Applicant has not clearly define the meaning of authentication (see the 112 rejection above), the information on the carrier that is visible, detectable by the human eye, and distinctive to the human viewer qualifies as the authenticating information. Given a broadest interpretation of the claim, Moed meets the claimed limitation (see the rejection above).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakamura [US 5,617,481] discloses a check digit incorporated in a decoding process for a device for identifying and reading a mark.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane I. Lee whose telephone number is 703-306-3427. The examiner can normally be reached on Monday through Friday from 6:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Diane I. Lee  
Examiner  
Art Unit 2876

October 17, 2002